

Appl. No. 10/681,340
Amdt. dated January 25, 2008
Reply to Office action of June 14, 2005

REMARKS/ARGUMENTS

Summary of Office Action

In the Office Action, claims 1-3, 5-7, 10 and 11 were rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,762, 145 (Bennett) in view of U.S. Patent No. 5,127,706 (Clark).

The Examiner also rejected claims 12, 14 and 22 under 35 U.S.C. 103(a) as being unpatentable over Bennett, in view of Clark, and further in view of U.S. Patent No. 6,571,878 (Puempal et al.).

Claims 4, 8, 9, 13, 15-21 and 23 were objected to as being dependent on a rejected base claim, but allowable if rewritten in independent form. Applicant thanks the Examiner for reporting that this subject-matter is allowable.

Remarks Regarding Amendments

In the Claims:

In claim 5, the term "expanded" has been added to further describe the nature of the casing. Support for this amendment can be found in paragraph 31, where the description states that the "casing 40 of the cartridge 10 may advantageously be manufactured by extruding a parison, enclosing the extruded parison in a mold, and then expanding the parison...".

In claim 6, the dimensions of the casing have been more fully set out to explicitly define "elongate". Applicant submits that this amendment is supported by the disclosure in that it makes explicit that which was formerly implicit, and that which

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is illustrated in the Figures (for example, the cartridges 10 and 110 of Figures 6 and 7, respectively).

Claim 10 has been amended to more particularly recite that the joint surface facilitates adhering the cartridge to a portion of one of the faces of the fuel tank, in consistency with claim 1.

Claims 14 and 21 have been cancelled without prejudice or disclaimer.

Claim 23 has been rewritten in independent form.

Claims 24-26 are new claims. Claim 24 generally recites the subject matter of (allowable) claim 21, re-written in independent form. The subject-matter of new claims 25 and 26 corresponds to former claims 20 and 4, rewritten to depend from claim 24.

Applicant submits that these amendments do not add new matter to the application, in view of the support as explained above.

Remarks Regarding S. 103(a) Claim Rejections

Claims 1-3, 5, 6, 7, 10, and 11 were rejected as being obvious in view of Bennett '145 combined with Clark.

The Examiner acknowledged that Bennett '145 does not teach a combustion suppression device being affixed to the outer surface of a tank in scattered arrangement. The Examiner presumably relied on Clark to provide the features of claim 1 missing from Bennett, stating that Clark teaches the placement of a

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device on the face of a body in an arrangement that is beneficial to the performance of the device.

With respect, Applicant submits that the rejection of claim 1 presented in the Office Action falls short of the required standards for establishing a prima facie case of obviousness. To properly establish a prima facie case of obviousness, it must at least be shown that (i) there is some suggestion or motivation to modify or combine reference teachings, and (ii) the references, when so modified or combined, teach or suggest all the claim limitations (see, for example, MPEP 2143).

Applicant submits that there is no suggestion or motivation in Bennett '145 or Clark to combine the references as combined by the Examiner in the Office Action. Furthermore, Applicant submits that the knowledge available to one skilled in the art would not provide such a suggestion or motivation. Bennett '145 is concerned with guarding a vehicle against fire in the event of a crash by surrounding the vehicle's fuel tank with panels that can break upon impact to release an extinguishant. Bennett '145 explains that the disclosed panels are advantageous over known panels (military applications) by being simpler to construct and install, and of lower cost (col. 3, lines 22-29). Clark is concerned with suppressing the spread of fire in a public seating area by filling at least part of the volume of a seat back or seat pan with an extinguishant that can be released by the melting of seal elements having a relatively low-temperature melting point. Clark states that its fire retardant seating overcomes the problem of making a comfortable seat from non-flammable material, a problem which exists in known approaches to retarding fires in public seating (col. 1, lines 30-35). There is no suggestion or motivation whatsoever to combine the teachings of the comfortable, fire-retardant seating of Clark with the economical fuel tank protecting panels of Bennett. Accordingly, a proper prima facie case of

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obviousness has not been established, and Applicant respectfully requests that this rejection be withdrawn.

Applicant further submits that the combination of Bennett '145 and Clark fails to teach or suggest all of the claim limitations of claim 1. Bennett '145 does not disclose the limitation related to the attachment of cartridges in scattered arrangement to a face of a fuel tank. Clark shows a single fire-retardant containing compartment 40 or bag 40a secured within a rear underside portion of a seat pan. It is clear that Clark provides no suggestion or motivation to affix in scattered arrangement a plurality of combustion suppressing cartridges to each of one or more faces of the outer surface of a fuel tank, as claimed in claim 1. The combination of Bennett '145 and Clark thus fails to teach or suggest this limitation, and thus Applicant submits that claim 1 satisfies the requirements of patentability over the cited references.

With regard to Clark, Applicant further submits that not only does Clark fail to teach the limitation pertaining to affixing cartridges in scattered arrangement to a fuel tank face, Clark in fact teaches away from such a configuration. The compartment 40 or bag 40a of Clark is described as having a length that is generally equal to the width of the seat, so that "the openings 28 or thinned section 44 (or sections) extend across the width of the seat component with which they are associated. The openings form passageways for egress of the fire-extinguishing material. This will enable the fire-retardant material to flow onto a piece of burning debris disposed at any location under the seat to better perform the fire-extinguishing function" (col. 3, line 65 – col. 4, line 5). This explicitly teaches provision of a single, relatively large compartment loaded in a particular position in a seating element, which stands in stark contrast to the affixing of a plurality of cartridges to one or more faces of the outer surface of a fuel tank, as claimed in claim 1.

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In view of all of the above, Applicant respectfully submits that claim 1 is not obvious in view of Bennett '145 and Clark. Withdrawal of this rejection is respectfully requested.

Regarding claims 2, 3, 5-7, and 10-11, Applicant submits that these claims depend either directly or indirectly from claim 1, which is allowable as argued above, and that these claims are therefore allowable in that they depend from an allowable base claim.

Further, regarding claim 3, the Examiner stated that the limitation pertaining to a transparent casing was taught or suggested by Bennett '145, presumably because Bennett '145 indicates the panel can be constructed of glass fabric. The Examiner appears to be interpreting "glass fabric" as being "generally transparent". With respect, Applicant submits that there is insufficient evidence on record to support this alleged finding of fact. Bennett '145 makes no suggestion whatsoever that the panels can be made of a transparent material, nor that "glass fabric" is in any way transparent. Applicant requests that the Examiner support this apparent factual assertion with adequate evidence or, in the absence of such support, that this obviousness rejection be withdrawn.

Regarding claim 5, the Examiner noted that the panels of Bennett '145 are constructed using face sheets (2) assembled to sandwich a honeycomb core. This in no way teaches or suggests forming a cartridge casing from an expanded multi-layered parison as claimed in amended claim 5. Applicant submits that claim 5 is allowable for this additional reason.

With regard to claim 6, Applicant submits that the device taught by Bennett '145 is planar, rather than elongate. The term elongate is used in its ordinary sense,

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and in view of the description and figures and in view of the knowledge of one skilled in the art, "elongate" as claimed would be understood to mean "slender" or small/narrow in width in proportion to length. Amended claim 6 includes language to this effect, and Applicant submits that claim 6 (as amended) is not obvious in view of Bennett '145 and is allowable for this additional reason.

Claims 12, 14 and 22 were further rejected as obvious in view of Bennett '145 combined with Clark and Puempel.

Regarding claim 12, Applicant respectfully submits that the Examiner has failed to establish a proper prima facie case of obviousness in that there is no motivation to combine Bennett '145, Clark, and Puempel. The absence of motivation to combine Bennett '145 and Clark has been argued above. Puempel discloses a fuel tank having an emissions control system to reduce discharge of hydrocarbons to ambient atmosphere. There is no teaching or suggestion in Puempel or the other references to combine the references as so combined by the Examiner.

Furthermore, Applicant submits that a proper prima facie case of obviousness has not been established because the combination fails to teach or suggest all of the claim limitations. Claim 12 includes a limitation regarding providing sockets in scattered arrangement in one or more faces of the outer surface of a fuel tank for receiving combustion suppressing cartridges. Neither Bennett '145 nor Clark teaches or suggests such a "scattered arrangement" limitation, as argued above. Applicant submits that neither does Puempel teach or suggest such limitations. The Examiner stated that the fuel tank of Puempel has a plurality of faces and "a plurality of sockets (not numbered) that are extended inwards towards the interior of the tank, and have every possibility of receiving one of the plurality of combustion suppressing cartridges." Applicant respectfully submits that there is

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insufficient evidence on record to support this statement. Applicant recognizes that the fuel tank of Figure 1 of Puempel has a contoured outer surface, but submits that such contours are, as understood by those skilled in the art, for fitting the tank within a limited space defined by various vehicle elements adjacent the fuel tank, such as, for example, drive train, suspension, or body frame elements. There is nothing in the record supporting the allegation that one of ordinary skill in the art would, at the relevant time, have known or recognized that Puempel discloses a fuel tank with sockets capable of receiving a combustion suppressing cartridge, as claimed in claim 12. To the extent that the Examiner believes otherwise, Applicant respectfully requests that the Examiner produce evidence to support such position. To the extent that the Examiner is not alleging this teaching as fact but is merely asserting that the references can be combined or modified, Applicant submits that the prior art fails to suggest the desirability of the combination, and that the resultant combination therefore cannot be considered obvious. The fact that references can be combined or modified is insufficient to establish obviousness (see for example, *In re Mills*, 916 F.2d 680, 683, 16. USPQ 2d 1430 (Fed. Cir. 1990)).

In view of the above, Applicant respectfully submits that claim 12 cannot be considered obvious in view of the cited references, and withdrawal of this rejection is respectfully requested.

Regarding claim 22, Applicant submits that claim 22 depends from claim 12 which is allowable as argued above, and that claim 12 is therefore allowable in that it depends from an allowable base claim.

Regarding claim 14, Applicant has cancelled claim 14 without prejudice or disclaimer, and submits that this rejection is now moot.

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Regarding claim 23, this claim formerly depended from claim 14, but was deemed to be allowable if rewritten in independent form. Amended claim 23 has been amended accordingly, and Applicant submits that claim 23 (as amended) is now allowable.

Claims 15-19 depend, directly or indirectly, from amended claim 23, and are allowable in that they depend from an allowable base claim.

Applicant submits that new claim 24 is allowable in that it generally corresponds to former claim 21, rewritten in independent form. Claim 21 was deemed allowable if amended accordingly. Claims 25 and 26 depend from claim 24.

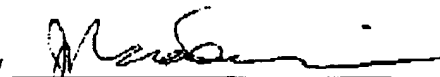
In view of all the above, Applicant respectfully submits that the claims presently on file are patentable over the prior art. Applicant submits that this is a complete response to the outstanding Examiner's communication and that this application is now in condition for allowance. A notice to that effect is respectfully solicited.

If additional fees are required, please charge the fees to our Deposit Account No. 02-2095.

Respectfully submitted,

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By



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